CLAIMS

1. A data transmission method for a packet-like data format, with a control section and a data section, comprising transmitting the control section and the data section of the packet-like data format at different data rates, the data rate of the data section being greater than the data rate of the control section.

2. The data transmission method of claim 1, wherein the control section, situated before the data section, includes a control signal that switches the receiver to a higher data rate for receiving the data of the data section, the higher reception data rate being at least as high as the transmission data rate of the data section.

3. The data transmission method of claim 2, wherein the data rate for transmission and reception is increased by increasing the channel bandwidth (B) and by time-compressing the transmitted data or symbols.

4. The data transmission method of claim 2, wherein the transmission and reception data rate is increased by increasing the multi-valent symbol coding of the transmitted data, while retaining the channel bandwidth (B) and the symbol period (T_{Symbol}).

5. The data transmission method of claim 2, wherein the transmission and reception data rate is increased both by increasing the channel bandwidth (B) with time-compression of the transmitted data or symbols, and by increasing the symbol coding of the transmitted data.

6. A method of transmitting data over a wireless communication channel from a transmitter to a receiver, comprising:

forming a data packet that includes a synchronization field, a header field and a data field, wherein said header field includes

(i) an address field comprising address data indicative of the transmitter address;

(ii) a control field that comprises a data rate control signal indicative of either a first data transmission rate or a second data transmission rate;

transmitting said header field over the wireless communication channel at the first data transmission rate;

receiving an acknowledgement from the receiver indicating that the receiver received the data within the control field and is prepared to receive data at the second data transmission rate; and

transmitting said data field to the receiver at the second data transmission rate, wherein the second data transmission rate is greater than the first data transmission rate.

7. The method of claim 6, wherein said step of transmitting said data field comprises increasing multi-valent symbol coding of data within said data field in comparison to said header field.

8. The method of claim 6, wherein said step of transmitting said data field comprises time compressing data within said data field, and transmitting time compressed data.

9. A method of receiving a data packet that includes a header field and a data field over a

wireless communication channel from a transmitter, comprising:

receiving the data packet header field over the wireless communication channel at first data rate, wherein said data packet header field includes a control field that comprises a data rate control signal indicative of either said first data rate or a second data rate;

checking the status of said data rate control signal; and

receiving the data packet data field at a rate indicated by said data rate control signal.

10. The method of claim 9, wherein after said step of checking said method comprises sending an acknowledgement message to the transmitter over the wireless data channel.

11. The method of claim 10, wherein said step of receiving the data packet data field comprises receiving the data packet data field at a second data rate which is greater than the first data rate.